



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,987	10/01/2001	Andrew D. Murdin	032931-0253	7970
7590 10/13/2004				
Bernhard D Saxe Foley & Lardner Suite 500 3000 K Street NW Washington, DC 20007-5109				
EXAMINER BASKAR, PADMAVATHI				
ART UNIT		PAPER NUMBER		
1645				

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

BERNHARD SAXE  
FOLEY & LARDNER  
SUITE 500  
3000 K STREET NW  
WASHINGTON DC 2007-5109

In re Application of	:	
MURDIN et al	:	Decision on Petition
Serial No. : 09/868,987	:	
Filed : 23 December 1999	:	
Attorney Docket No. : 03293/0253	:	

This letter is in response to the Renewed Petition for Reconsideration of Restriction Requirement filed on 11 March 2004. The delay in acting upon this petition is regretted.

**BACKGROUND**

This application is filed as 35 USC 371 of the National Stage filing of PCT/CA99/01230, filed 23 December 1999, which claims priority to several provisional applications filed on 12/23/98 and 12/28/98.

On 27 July 2003, applicants have filed a petition to review the restriction requirement set forth by the examiner on 4 October 2002.

The petition was granted in-part on 13 January 2004. In the petition decision, the restriction requirement between DNA comprising SEQ ID NO: 1 and DNA encodes SEQ ID NO: 14 has been withdrawn. Claim 38, directed to a kit comprising DNA, protein or antibody has been rejoined to the product claims of group I, II and III respectively. The method of claim 37 has been divided in three groups IV, V and VI drawn to method of detecting using DNA, protein or antibody, respectively.

The resulting groups are summarized as follows:

Group I, claims 1-19, 25, 36, 38 (a), 79, 80-83, drawn to DNA, vector, host cell, kit and a method of expressing the DNA and a method of preventing infection by administering the DNA.

Group II, claims 20-24, 27-24, 36 and 38 (b), drawn to polypeptide and vaccine, and a method of preventing infection by administering a peptide.

Group III, claims 26, 35, and 38 (c) drawn to an antibody, and a method of preventing infection by administering an antibody.

Group IV, claim 37 (a) drawn to a method of detecting Chlamydia infection using nucleic acid.

Group V, claim 37 (b), drawn to a method of detecting Chlamydia infection using a peptide.

Group VI, claim 37 (c) drawn to a method of detecting Chlamydia infection using an antibody.

Group VII, claim 39, drawn to a method for inducing an immune response using a polypeptide.

On 11 March 2004, applicants filed a renewed petition for reconsideration of Restriction Requirement, a 37 CFR 1.131 Declaration by inventor Andrew Murdin, and amendment to claims 1-4, 7-17, 20-21, 25, 27-28, 33-38, 79-80, and added new claims 81-83.

## **RELEVANT AUTHORITY**

An international or a national stage application are considered to have unity of invention where there exists a "special technical feature" that defines a contribution which each of the claimed inventions, considered as a whole, makes over the prior art. See PCT Rule 13.2; 37 CFR 1.475(a), (b)(1) and(2).

In addition to the categories provided for in 37 CF 1.475(b) (1-5) , unity of invention is explicitly provided for in the following context:

Claim 1: Protein X

Claim 2: DNA sequence encoding protein X.

wherein expression of the DNA sequence in a host results in the production of a protein, which is determined by the DNA sequence. The protein and the DNA sequence exhibit corresponding special technical features. Unity of invention between claims 1 and 2 is accepted.

See MPEP 1893.03(d) and Annex B, Part 2 of the PCT Administration Instructions, Example 17.

Unity of invention has to be considered in the first place only in relation to the independent claims in an international and not the dependent claims and (i) If the independent claims avoid the prior art and satisfy the requirement of unity of invention, no problem of lack of unity arises in respect of any claims that depend on the independent claims;

(ii) If however, an independent claim does not avoid the prior art, then the question whether there is still an inventive link between all the claims dependent on the claim need to be carefully considered. If there is no link remaining an objection of lack of unity a posteriori (that is, arising only after assessment of the prior art) may be raised. See ANNEX B: Unity of Invention Part 1 "Instructions Concerning Unity of Invention" MPEP AI-6 (Rev. 1. Feb. 2003).

## **DISCUSSION**

The petition and application file history have been considered carefully. A summary of the prosecution history can be found in the decision concerning the first petition mailed on 13 January 2004.

The above-identified application is a national stage application submitted under 35 U.S.C. 371 to which "unity of invention", and not U.S. restriction practice is applicable. MPEP section 189.03(d).

The lack of unity between the groups I-VII and the technical feature linking groups I-II is at issue, especially between nucleic acid encoding the peptide of SEQ ID NO: 14 and the peptide of SEQ ID NO: 14 are at issue.

Representative claims of group I:

Amended Claim 1: An isolated nucleic acid molecule comprising a nucleic acid sequence which encodes a) SEQ ID NO: 14; b) an immunogenic fragment comprising at least 50 consecutive amino acids from SEQ ID NO: 14.

Claim 3: An isolated nucleic acid molecule comprising a nucleic acid sequence, which is anti-sense to the nucleic acid molecule of claim 1.

Representative claims of group II:

Amended Claim 21: An isolated polypeptide comprising an amino acid sequence selected from: a) SEQ ID NO: 14; and b) an immunogenic fragment comprising at least 12 consecutive amino acids from SEQ ID NO: 14.

It is noted that the independent claim 1 and 21 above, are drawn to a genus of nucleotides encoding a genus of polypeptides and not a single species of polypeptide and the genus of polynucleotides that encode it as in Example 17.

The polynucleotide of group I does not share a common structure or function or property with the polypeptide of group II. Further neither the nucleic acid molecule comprising a nucleic acid sequence which is anti-sense to the nucleic acid molecule of claim 1, nor the nucleic acid sequence which encodes an immunogenic fragment comprising at least 50 consecutive amino acids from SEQ ID NO: 14 are required to or could possibly encode the polypeptide comprising amino acid sequence of SEQ ID NO: 14, such that according to the PCT Administrative Instructions, Example 17 the inventions exhibit no corresponding special technical feature.

According to the PCT Rule 13.2, the special technical feature shall mean those technical features that define contribution which each of the claimed inventions, considered as whole makes over the prior art.

The technical feature of group I is considered as polynucleotide.

The technical feature of group II is considered as polypeptide.

The polynucleotide is made of nucleic acids, and the polypeptide is made of amino acids.

Thus, the polynucleotides of group I, and the polypeptides of group II are not linked by the same or corresponding technical feature as defined by PCT Rule 13.2.

In the present instance neither the polynucleotide of group I and nor the polypeptides of group II exhibit a corresponding special technical feature since Hillier et al (Genome Research. Vol 6, no. 9, pages 807-828. 1996) teaches the nucleic acid sequence, which is 100 % complementary (i.e., antisense) to the nucleotides 370-388 of SEQ ID NO: 1 of the instant claims, which is within the scope of the presently claimed invention. It is noted since claim 3 recites 'an isolated nucleic acid molecule comprising a nucleic acid sequence, which is anti-sense to the nucleic acid molecule of claim 1', and the specification disclosure does not define the antisense sequence length that corresponds to the nucleic acid sequence of claim 1, the reference sequence would anticipate the claimed nucleic acid molecule. See the attached sequence alignment.

Thus, the nucleic acid molecule of group I do not share a special technical feature with the polypeptides of group II.

The technical feature of group I, the nucleic acid molecule of claim 1, is not present in the groups II-III, and groups V-VII.

Because Hillier et al teach the nucleic acid of claim 3 (group I), the technical feature of linking groups I-VII does not constitute a special technical feature as defined by PCT Rule 13.2, as it does not define a contribution over the prior art and hence the unity of invention is lacking.

Upon reconsideration, the Finality of the office action, mailed on 28 June 2004 has been withdrawn as being premature. The application will be forwarded to the examiner for preparation of an action consistent to this petition decision.

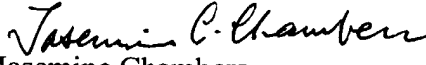
## DECISION

Applicant's renewed petition for reconsideration of Restriction requirement between groups I-VII under 37 CFR 1.144 is **DENIED** for the reasons set forth above.

Any request for consideration must be filed within two (2) months of the mailing date of this decision.

It is noted that the renewed petition for reconsideration of restriction requirement (filed on 11 March 2004) is signed by attorney Thuy H. Nguyen of address Smart & Biggar of Canada. However, no revocation of power of attorney has been found in this application. Thus the petition decision will be addressed to the Attorney of record with a copy to be mailed to Attorney Nguyen.

Should there be any questions regarding this decision, please contact Special Program Examiner Julie Burke, by mail addressed to Director, Technology Center 1600, PO BOX 1450, ALEXANDRIA, VA 22313-1450, or by telephone at (571) 272-1600 or by Official Fax at 703-872-9306.

  
Jasmine Chambers  
Director, Technology Center 1600.

ADDRESS:

THUY H. NGUYEN  
SMART & BIGGAR  
900-55 METCALFE STREET  
OTTAWA, ONTARIO  
CANADA, K1P 5Y6